



CONSTRUCTION EQUIPMENT

SW-25850-2 MAVERICK VOLVO EC480E 3 15097 - DIESEL ENGINE



Sample No: VCP443489
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-25850-2 MAVERICK



SAMPLE INFORMATION

Sample Number	VCP443489	VCP423008	---	---
Sample Date	02 Nov 2023	31 Jul 2023	---	---
Machine Hours	1250	679	---	---
Oil Hours	530	679	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

ARNOLD MACHINERY COMPANY

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	▲ 10.5	---	---
Base Number (BN)	mg KOH/g	■ 6.9	■ 4.8	---	---
Oxidation (PA)	%	67	72	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	71	81	---	---
Sulfation (PA)	%	57	60	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 0.6	---	---
Silicon	ppm	■ 10	■ 33	---	---
Sodium	ppm	■ 3	■ 0	---	---
Potassium	ppm	■ 2	■ 4	---	---



WEAR METALS

Iron	ppm	■ 8	■ 14	---	---
Copper	ppm	▲ 74	▲ 263	---	---
Lead	ppm	■ 0	■ 1	---	---
Tin	ppm	■ <1	■ 2	---	---
Aluminum	ppm	■ 3	■ 3	---	---
Chromium	ppm	■ <1	■ 0	---	---
Molybdenum	ppm	■ 65	■ 84	---	---
Nickel	ppm	■ 0	■ <1	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	■ 0	■ <1	---	---
Manganese	ppm	■ <1	■ 3	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	■ 1276	■ 2221	---	---
Magnesium	ppm	■ 807	84	---	---
Zinc	ppm	■ 1238	■ 1175	---	---
Phosphorus	ppm	■ 991	■ 954	---	---
Barium	ppm	■ 7	■ 0	---	---
Boron	ppm	■ 17	■ 27	---	---

Depot: VOLVO8770
Unique No: 10737803
Signed: Don Baldrige
Report Date: 14 Nov 2023



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GRAPHS

